



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/883,435

06/18/2001

Gunther Knebel

KNEBEL ET AL. - 1

2793

7590

02/25/2004

COLLARD & ROE, P.C.  
1077 Northern Boulevard  
Roslyn, NY 11576-1696

EXAMINER
----------

ANDERSON, MATTHEW A

ART UNIT	PAPER NUMBER
----------	--------------

1765

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/883,435

Applicant(s)

KNEBEL ET AL.

Examiner

Matthew A. Anderson

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3,6-10,12-24,27-36,38,53 and 54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-10,12-24,27-36,38,53 and 54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 18 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3,6-10, 12-24, 27-36, 38, 53-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (US 6,039,804).

Kim et al. discloses a crystallization tray housing as shown in Figs 1, 2. Fig 3 shows a side view. Each tray has a plurality of separate crystallization units arrayed as an integral part of it. The units consist of a reservoir and drop chamber around the reservoir. Each drop chamber has a shoulder for placement of a cover slip from which a drop solution for crystal growth can be suspended. (see abstract) The optimization of the geometry of the chamber is suggested in col. 6 lines 8-24. Figs 4 and 5 (see col. 5 lines 25-56) discloses that a drop of solution for crystallization be hung over the central reservoir. Kim suggests using a transparent plastic material.

It would have been obvious to one of ordinary skill in the art at the time of the present invention to produce a reaction vessel (i.e. a tray housing) including a housing for liquid containment with several identical reaction chambers (i.e. crystallization units), each separate, immediately adjacent, which consist of a reservoir and identical

Art Unit: 1765

reaction areas (i.e. drop chambers) in gaseous communication, because such is suggested in Kim et al.

It would have been obvious to one of ordinary skill in the art at the time of the present invention to rearrange the placement of the reaction areas relative to the reservoir because no change as to how the reservoir and the reaction areas coact would be expected and Kim et al. suggests that other geometrical arrangements be used.

In light of this suggestion that other geometrical arrangements be used, it would have been obvious to one of ordinary skill in the art at the time of the present invention to design the reaction vessel with respect to size and shape of the recesses and reaction areas and the number contained in the vessel.

In respect to claims 21-30, 36-38 it would have been obvious to one of ordinary skill in the art at the time of the present invention to include a top part or lid with a reaction area (see col. 2 lines 63 and col. 3 lines 1-5) since Kim et al. discloses such. The other limitations are obvious design choices concerning only size and shape of the chambers. Figs 6-7 suggest the design of claim 38.

### ***Response to Arguments***

3. Applicant's arguments filed 12/12/2003 have been fully considered but they are not persuasive.

The argument that the shapes of the present invention's reservoir's and drop chambers and their spacing on the crystallization tray are different and therefore patentable is not convincing. This is a design choice which does not affect the use of the vessel and is at least suggested by the Kim et al.

To reiterate, the argument that a honeycomb arrangement was new and unobvious is not convincing. Again the suggestion to change the geometry of the chamber placement by Kim et al. would have made the hexagonal placement obvious to those of ordinary skill in the art since they would have been expected to be well versed in elementary geometry.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1765

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew A. Anderson whose telephone number is (571) 272-1459. The examiner can normally be reached on M-Th, 7-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MAA  
February 11, 2004

NADINE G. NORTON  
SUPERVISORY PATENT EXAMINER  
